

In The Claims:

Claim 1. (currently amended) A back panel structure of liquid crystal on silicon (LCOS) comprising:

a substrate having a cell region and a routing/pad region, wherein the cell region is arranged with a plurality of pixels, and the routing/pad region is arranged with a patterned trace and a plurality of routing/pads, and the routings/pads are electrically bonded to the pixels by means of the patterned trace;

an alignment layer, disposed over the substrate; and

a break protective layer, arranged on the alignment layer ~~over~~ direct above the routing/pad region.

Claim 2. (original) The backpanel structure of claim 1, wherein the substrate is a silicon substrate.

Claim 3. (original) The backpanel structure of claim 1, wherein the break protective layer is a photoresist.

Claim 4. (original) The backpanel structure of claim 1, wherein the break protective layer is a dielectric layer.

Claim 5. (currently amended) A backpanel structure of liquid crystal on silicon (LCOS), comprising

a substrate, having a cell region and a ~~mounting~~ routing/pad region;

an alignment layer, disposed over the substrate; and
a break protective layer, arranged on the alignment layer—~~over~~ direct above the routing/pad region.

Claim 6. (original) The backpanel structure of claim 5, wherein the substrate is a silicon substrate.

Claim 7. (original) The backpanel structure of claim 5, wherein the cell region of the substrate is arranged with a plurality of pixels.

Claim 8. (original) The backpanel structure of claim 5, wherein the routing/pad region is arranged with a patterned trace and a plurality of routing/pads and the routing/pads are electrically bonded to the pixels through the patterned trace.

Claim 9. (currently amended) The backpanel structure of claim 5 ~~8~~, wherein the break protective layer is arranged on the patterned trace of the routing/pad region.

Claim 10. (original) The backpanel structure of claim 5, wherein the break protective layer is a photoresist.

Claim 11. (original) The backpanel structure of claim 5, wherein the break protective layer is a dielectric layer.

Claim 12. (original) A liquid crystal on silicon (LCOS) cell structure, comprising;

a silicon back panel having a cell region and a routing/pad region, wherein the routing/pad region is arranged with a break protective layer;

an alignment layer disposed over the silicon back panel;

a transparent substrate being mounted on the top of the cell region to expose the routing/pad region;

a sealant material mounted between the silicon backpanel and the transparent substrate;

and

a liquid crystal layer arranged at the space formed by the silicon backpanel, the transparent substrate and the sealant material.

Claim 13 (original) The LCOS cell structure of claim 12, wherein the cell region is arranged with a plurality of pixels and an alignment layer.

Claim 14. (original) The LCOS cell structure of claim 12, wherein the routing/pad region is arranged with a patterned trace and a plurality of routings/pads, and the routings/pads are electrically bonded to the pixels by means of the patterned trace.

Claim 15. (currently amended) The LCOS cell structure of claim ~~12~~ 14, wherein the break protective layer is arranged on the patterned trace of the routing/pad region.

Claim 16. (original) The LCOS cell structure of claim 12, wherein the break protective layer is a photoresist.